

## EXPLANATION OF PLATES.

PLATE I. *Head of Male, profile.* In this view, are to be seen the strongly developed inter-parietal crest and superciliary ridges, the broad and curved zygomatic arches, and the expanded ramus of the lower jaw.

PLATE II. *Head of Female, profile.* The inter-parietal crest here exists in a rudimentary condition only, and the ramus of the lower jaw is much more narrow than in the male, but the curve of the zygomatic arch is quite conspicuous.

PLATE III. *Head of Male, front view.* This represents the head so placed that the border of the lower jaw is horizontal, in which position the cranium proper almost disappears behind the superciliary ridges. The occipital crest cannot be seen in this position. The middle incisors of the upper jaw were missing.

PLATE IV. FIG. 1. *Head of Female, front view.* The teeth of this head are irregularly arranged in the lower jaw; the canine of the right side is opposed to the lateral incisor of the upper jaw, and the right middle incisor is to the left of the median line.

FIG. 2. An ideal representation of the teeth of the female.

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ART. XXXV. — DESCRIPTIONS AND FIGURES OF THE ARANEIDES OF THE UNITED STATES. By NICHOLAS MARCELLUS HENTZ, Tuscaloosa, Alabama.

[Continued from Vol. V. page 370.]

Genus THOMISUS. Walck.

Characters. *Cheliceres small, cuneiform, fang small; maxillæ pointed at tip, more or less inclined over the lip; lip pointed at tip, wider in the middle than at base, as long as, or longer than, half the length of the maxillæ; eyes eight equal or subequal, commonly in two rows of four each, the posterior one longest, bent from the base towards the anterior one; feet, commonly the first and second pair longest, or the second alone longest.*

Habits. Araneïdes wandering after prey, making no web,

but casting irregular threads, cocoon flattened, usually placed under leaves, watched by the mother till the young are hatched.

*Remarks.* Well was it remarked by Walckenaer, that a subgenus so easily recognized as THOMISUS is nevertheless excessively difficult to characterize. There is not one feature save the small size of the cheliceres, a secondary character, which is not liable to vary in the different species, and yet, the sub-division is a natural one. Nay, the sub-genus PHILODROMAS which seems to correspond to my first tribe, the DEPRESSÆ, does not appear to be sufficiently characterized to be separated from this, at least if my THOMISUS VULGARIS can be referred to it.

SECTION I. HETEROPODÆ. *Four posterior legs shortest.*

Tribe I. DEPRESSÆ. *Legs very long, equal in thickness, body flattened.*

1. THOMISUS VULGARIS.

Plate XXIII. Fig. 1.

*Description.* Pale grey, abdomen with four impressed dots, body flat; legs with indistinct darker rings.

*Observations.* This spider, commonly seen on fencing or prostrate timber, like those of the same genus, moves sideways and backwards, but it is much more active than *T. celer*. When pursued by an enemy, like *ATTUS* and *EPEÏRA*, it leaps and hangs by a thread, which supports it in the air.

*Habitat.* United States.

Tribe II. CANCROÏDES. *Legs very long, four anterior ones largest, abdomen oval.*

2. THOMISUS ALEATORIUS.

Plate XXIII. Fig. 2.

*Description.* Cephalothorax greenish yellow, region of the

eyes reddish with whitish lines between and before the eyes, trophi piceous; abdomen yellow with six impressed dots, yellow underneath; feet, two first pair piceous, third and fourth greenish yellow. A small species.

*Observations.* This little spider is not rare, usually found on plants.

*Habitat.* Alabama, September.

Tribe. III. PYRIFORMES. *Legs moderately long, abdomen pyriform.*

### 3. THOMISUS FEROX.

Plate XXIII. Fig. 3.

*Description.* Brownish yellow; cephalothorax with a dusky band each side, abdomen with four or six angular brownish spots; two anterior pair of feet hairy.

*Observations.* This common species is found on plants with the same habits as *T. celer*. I have found in Alabama, in April, a male and a female on a bush; the male was grasping her with his long legs. His abdomen was not truncated, and its marking was somewhat different from that of the female. This spider is apt to vary in color and marking.

*Habitat.* United States.

### 4. THOMISUS FARTUS.

Plate XXIII. Fig. 4.

*Description.* Pale yellow; cephalothorax with an orange fascia in the region of the eyes; abdomen with a marginal red band not reaching the apex, and five or seven impressed dots, the band sometimes obsolete.

*Observations.* This elegant species first found on the *Actæa spicata* in the Cambridge botanic garden, and often seen since in various places, is always found on plants. It watches its cocoon, which is attached usually under a leaf,

like that of a *Coccinella*, and remains near, till the eggs are hatched. It varies in marking, and I have one species with red spots on the back of the abdomen. It is nevertheless distinct from *T. celer*, and may be *T. citreus*, Règne An. IV. 256.

*Habitat.* Massachusetts, Alabama.

#### 5. THOMISUS CELER.

Plate XXIII. Fig. 5.

*Description.* Pale yellow, with a slight tinge of grass green, particularly the legs. Two curved rows of impressed dots on the abdomen; lateral eyes not borne on tubercles.

*Observations.* This spider is found usually on blossoms, where it remains, patiently waiting for Dipteræ, other small insects, and even butterflies, which it secures with amazing muscular power. It moves backwards and sideways more commonly than forwards. Sometimes seen larger, though never attaining great dimensions.

*Habitat.* Found in South Carolina, North Carolina, Massachusetts, Alabama, Ohio, &c.

Tribe IV. OCULATÆ. *External eyes borne on tubercles, eyes equal.*

#### 6. THOMISUS PIGER.

Plate XXIII. Fig. 6.

*Description.* Yellowish brown; cephalothorax with two brownish bands; abdomen with two curved lines of impressed dots; somewhat paler underneath.

*Observations.* This species is probably the largest, and is very distinct from any other, particularly by its habits. It dwells under stones, where it watches for its prey, and has not been found on plants.

*Habitat.* North Carolina.

## 7. THOMISUS ASPERATUS.

Plate XXIII. Fig. 7.

*Description.* Pale, covered with short bristles; cephalothorax, outer eyes of second row tuberculated, with two blackish bands, and a few longer bristles about the eyes; abdomen pale brown above, pale glabrous underneath; feet, first and second pair with brown rings, third and fourth with fewer bristles.

*Observations.* This spider, which is found on plants, seems quite distinct from any other, though the species of this subgenus are very variable.

*Habitat.* Alabama. September.

## 8. THOMISUS PARVULUS.

Plate XXIII. Fig. 8.

*Description.* Rufous; abdomen yellowish with a transverse band black, near the apex; third and fourth pair of legs greenish or yellowish; first and second pair longer and slender in the male.

*Observations.* The external eyes appear to be larger, on account of their being placed on elevations. This species is common, and frequently found on the blossoms of umbelliferous plants.

*Habitat.* The Southern States.

Tribe V. TUBERCULATEÆ. *A tubercle on the abdomen, external eyes larger, tuberculated.*

## 9. THOMISUS CAUDATUS.

Plate XXIII. Fig. 9.

*Description.* Dusky; abdomen with a tubercle or tail behind above the apex, about six small black dots on the disk; pale beneath, with a longitudinal band, and sides blackish; feet,  $\overbrace{1. 2. 4. 3.}$

*Observations.* This species is not rare. It is sometimes found wandering in mid-winter. The eyes are unequal in size, the two lower external ones are largest, and the four external ones are borne on tubercles.

*Habitat.* Alabama.

SECTION II. EQUIPEDES. *Four posterior legs not invariably the shortest.*

Tribe VI. FILIPEDES. *Feet slender, long, second pair longest, then the fourth.*

10. THOMISUS? DUTTONI.

Plate XXIII. Fig. 10.

*Description.* Pale grey; cephalothorax with a longitudinal rufous band; abdomen long and slender, with a like narrow band, and two minute black dots near the apex; legs yellowish, 2. 4. 1. 3.

*Observations.* This singular spider was communicated to me by Mr. Thomas R. Dutton, who collected it in Georgia in 1838. The alcohol in which it was preserved may have changed its colors.

*Habitat.* Georgia.

Tribe VII. not determined; *eyes in four rows.*

11. THOMISUS? DUBIUS.

Plate XXIII. Fig. 11.

*Description.* Pale; cephalothorax with two slender longitudinal blackish lines edged with greenish; abdomen with a similar green edged line, which bifurcates towards the base, and has one small black dot on each bifurcation; feet, first pair wanting, second very long, fourth next, third shortest.

*Observations.* This singular spider was unfortunately mutilated when discovered, and the drawing was left unfinished, as I hoped other specimens would occur; none however, were ever found. There is an affinity in some points between this and *T. Duttoni*.

*Habitat.* North Carolina.

## THOMISUS? TENUIS.

Plate XXIII. Fig. 12.

*Description.* Testaceous, downy; cephalothorax with a longitudinal white band, and a tuft of hair between the eyes; abdomen with two interrupted longitudinal whitish fillets, four long nipples; feet bristly, 2.  $\overbrace{1. 4}^3$ .

*Observations.* This is undoubtedly congeneric with my *Thomisus dubius*. But knowing nothing of their webs nor of habits, I still refrain from making any generic distinction. These will probably form the type of a new sub-genus. This one was found enclosed in the clay nest of a SpheX.

*Habitat.* Alabama.

## GENUS CLUBIONA. Latr.

*Characters.* *Cheliceres* long, fang moderately long; *maxillæ* parallel, wider above the insertion of the palpi, lip widest in the middle; eyes eight, equal, in two rows, the lower one nearly straight; feet, the fourth or the first pair longest; body usually of a pale or livid color.

*Habits.* Araneïdes sedentary, watching their prey, and inclosing themselves in silk tubes; cocoon orbicular.

*Remarks.* This sub-genus like *Thomisus*, cannot be characterized with any precision, owing to the variations in the form of the trophi, the position of the eyes, &c. It is nevertheless a natural subdivision of ARANEA. The species composing it have nocturnal habits; little therefore, is known of their history. They dwell under leaves, under bark or stones, where they may be found in silk tubes, from which they seldom issue during the day.

Tribe I. DRYADES. *Eyes*, posterior row bent toward the base, fourth pair of legs longest, then the second.

## 1. CLUBIONA PALLENS.

Plate XXIII. Fig. 13.

*Description.* Livid white; abdomen varied with plumbeous

spots above, and four small dots near the apex underneath; feet, 4.  $\overbrace{2. 1. 3.}$  Both sexes alike.

*Observations.* This spider is found in silk tubes, concealed under the bark of decaying trees, where it spends the winter. There is a spotless variety which may prove a distinct species.

*Habitat.* North Carolina, Alabama; common.

#### 2. CLUBIONA OBESA.

Plate XXIII. Fig. 14.

*Description.* Testaceous or brownish, abdomen with a longitudinal more or less distinct brown band above.

*Observations.* This spider, usually found concealed in silk tubes, was sometimes seen in the blossoms of the Magnolia seeking for prey. It is perfectly distinct from *Clubiona inclusa*.

*Habitat.* Massachusetts, North Carolina, Alabama.

Tribe II. HAMADRYADES. *Eyes, posterior row bent from the base, lip emarginate, first pair of legs longest.*

#### 3. CLUBIONA PISCATORIA.

Plate XXIII. Fig. 15.

*Description.* Dingy rufous; eyes sub-equal, two middle ones larger; abdomen pale, piceous, with a sub-obsolete spot near the base, four nipples, two external ones bi-articulate. Feet long, 1. 4. 2. 3.

*Observations.* The difference between the eyes of this and those of my *Clubiona obesa* prevents my referring them to the same species. The pulmonary orifices are white, under a gloss. This spider made an even web like AGELENA. Wandering at night.

*Habitat.* Alabama.

#### 4. CLUBIONA TRANQUILLA.

Plate XXIII. Fig. 16.

*Description.* Deep rufous or piceous; abdomen greyish black, with four impressed dots.



*Observations.* It is difficult to learn much of the habits of this spider, which moves chiefly at night. A male and a female were found in Alabama in July, in the folds of an old piece of paper, near a silk tube of extreme whiteness, which was probably destined to receive the eggs. Always found in a tube except at the approach of winter, when it is sometimes found wandering.

*Habitat.* Common in the United States.

Tribe III. NYMPHÆ. *External eyes approximated, lip emarginate, first pair of legs longest.*

5. CLUBIONA INCLUSA.

Plate XXIII. Fig. 18.

*Description.* Livid white, or pale yellow; cheliceres, last joints of all the feet and of the palpi tipped with black; a longitudinal dusky line beginning at base of the abdomen.

*Observations.* This spider was always found in tubes of white silk, the female watching her cocoon, which is covered with a very thin coat of silk; the eggs are loose and not glued together. It probably moves out only at night, as its pale color indicates. The young are deeper in color even than the mother.

*Habitat.* South Carolina, North Carolina, &c.

Tribe IV. FURIÆ. *External eyes not touching, lip truncated at tip, fourth pair of legs longest.*

6. CLUBIONA FALLENS.

Plate XXIII. Fig. 17.

*Description.* Yellowish or rufous; cephalothorax with blackish lines; abdomen pale, with two rows of sub-obsolete dots, and two abbreviated rows of smaller ones obscure, same color underneath; feet hairy, particularly the third and fourth pair, in the female, 4. 1. 2. 3. and in the male  $\overbrace{1. 4. 2. 3.}$  The sexes marked alike.

*Observations.* Were it not that the eyes are differently

placed, this might be taken for *C. celer*. Males and females were found in silk tubes constructed on leaves. A male was found in November, with imperfect blackish rings on the legs, one more distinct at the base of the antepenult joint. Is it a variety or a distinct species?

*Habitat.* Alabama. October, November.

7. CLUBIONA GRACILIS.

Plate XXIII. Fig. 19.

*Description.* Yellowish; cephalothorax with two longitudinal bluish bands; abdomen with two longitudinal bands of numerous small red dots, the bands uniting towards the apex; feet, hairy,  $\overbrace{4. 1. 2. 3.}$  The sexes alike.

*Observations.* This very active spider is often seen in mid-winter on a mild day apparently migrating in great numbers, being supported in the air by a long thread, and borne by the breeze. Once, many were seen in December, thus approaching a large tree, under the bark of which they probably intended to hibernate. A variety, perhaps a distinct species, was found, destitute of dots or bands; it was concealed in a silk tube on a leaf.

*Habitat.* North Carolina, Alabama.

8. CLUBIONA CELER.

Plate XXIII. Fig. 20.

*Description.* Pale; cephalothorax with angular markings near the edge, and some lines; abdomen pubescent, with indistinct dots; feet, hairy. Male resembling the female in every point of markings.

*Observations.* This little spider was found in December, suspending itself from a thread, and moving with great activity. A male somewhat larger than the scale was found in Alabama, April, wandering about at night.

*Habitat.* North Carolina, Alabama.

Tribe V. CAVERNOSÆ. *Eyes in two sub-parallel rows, lip pointed at tip, feet variable.*

9. CLUBIONA ? AGRESTIS.

Plate XXIII. Fig. 21.

*Description.* Livid green; abdomen purplish brown, with four impressed dots; feet, 1. 4. 2. 3. Male of a piceous color.

*Observations.* The male and the female were found under a stone. The female has two curved rigid shining elevations under the vulva, forming an arch open towards the base. It is with some hesitation that I place this species in this subdivision.

*Habitat.* Alabama. March.

10. CLUBIONA IMMATURA.

Plate XXIII. Fig. 22.

*Description.* Yellowish rufous, middle lower eyes black; abdomen immaculate pale green; legs with very short hairs, 4. 1. 2. 3.

*Observation.* This was found in a cellar.

*Habitat.* Alabama. October.

Tribe VI. Not determined.

11. CLUBIONA ? SUBLURIDA.

Plate XXIV. Fig. 1.

*Description.* Pale yellowish; cheliceres very large; abdomen with two obscure sub-obsolete lines, same color beneath with a few minute brown spots; feet, long, slender, 1. 4. 2. 3.

*Observations.* This spider was found upon a bush, without any web. It displayed great activity and vigor. When at rest it had its legs spread out.

*Habitat.* Alabama. July.

12. CLUBIONA ? SALTABUNDA.

Plate XXIII. Fig. 23.

*Description.* Pale; cephalothorax with a few obscure marks near the edge, palpi with bristles; abdomen with two

rows of blackish dots, and a few minute ones towards the sides; pectus with a scolloped black line on each side; venter with four or five small spots, and many small dots black; feet, slender, 1. very long, 4. 2. 3.

*Observations.* This spider is found in the fields, wandering, and running with great activity. It leaps like *Artus*, and like it too, it leaves a thread behind to secure its flight. A female found in November, made a tube or tent as a residence in the vial in which it was enclosed. The male resembles the female. Probably congeneric with *Clubiona? sublurida*.

*Habitat.* Alabama. May, November.

### 13. CLUBIONA? ALBENS.

Plate XXIII. Fig. 24.

*Description.* Pale bristly; abdomen deeper in color, venter with its base and three spots, pale green, pectus with a line each side, pale green, nipples, four long ones and two short. Feet, very long and slender, 1. 4. 2. 3. First much the longest.

*Observations.* This is undoubtedly related to my *C. saltabunda*, and with it will probably constitute a new subgenus at some future time.

*Habitat.* Alabama.

### GENUS HERPYLLUS. Mihi.

SILLIMAN'S J. Vol. XXI. p. 102.

*Characters.* *Cheliceres* moderately large, without teeth; *maxillæ* parallel, wider above the insertion of the palpi, cut obliquely above; lip about half the length of the *maxillæ*, narrower towards the point; eyes, eight, sub-equal in two parallel rows of four each, both commonly bent towards the base; feet, the fourth pair longest, then the first, then the second, the third being the shortest.

*Habits.* Araneïdes wandering after prey, making no web, but running about with great swiftness, and hiding under stones, crevices, &c. Cocoon unknown.

*Remarks.* This sub-genus, very closely related to CLUBIONA, is very well characterized notwithstanding the similarity. The character derived from the respective length of the legs is very constant, showing the property of being fast runners in all the species of this division.

In habits they differ wholly from CLUBIONA, being in fact wandering Araneides. The swiftness with which they run is truly surprising. They are not exclusively nocturnal, being often seen to run in the brightest sunshine.

Tribe I. BREVIPEDES. *Legs strong, rather short, maxillæ long, cut obliquely above.*

1. HERPYLLUS ECCLESIASTICUS.

Plate XXIV. Fig. 2.

*Description.* Black; cephalothorax with a whitish longitudinal band; abdomen with an abbreviated band, and a spot white.

*Observations.* This spider is not rare, found between boards and crevices in dark places; running very fast, chiefly at night; I never could find its cocoon or its permanent dwelling-place.

*Habitat.* The United States.

2. HERPYLLUS ATER.

Plate XXIV. Fig. 3.

*Description.* Deep glossy black, immaculate, feet rather short.

*Observations.* This species, readily distinguished from *H. descriptus*, which has long slender legs, is found running with great rapidity on paths and frequented places. It is diurnal, and when pursued it seeks shelter under stones or leaves. It has the same habits with *H. bicolor*, to which it is related.

*Habitat.* Pennsylvania, New England.

## 3. HERPYLLUS BICOLOR.

Plate XXIV. Fig. 4.

*Description.* Rufous; abdomen bluish black, with about six impressed dots. Male same colors.

*Observations.* This common species is found usually on the ground or under stones, leaves, &c., running with great rapidity. The female almost invariably kills the male and eats him, after the calls of nature are satisfied. It is related to *H. ater*.

*Habitat.* North Carolina, Alabama, and probably the United States.

## 4. HERPYLLUS BILINEATUS.

Plate XXIV. Fig. 5.

*Description.* Whitish; cephalothorax above, and abdomen above and beneath with two longitudinal black bands somewhat curved; feet yellowish. Male with the same marks.

*Observations.* This spider is remarkably active, usually found on trees. No species of this sub-genus is more distinct, and invariably spotted in the same manner. It is not rare.

*Habitat.* North Carolina, Alabama.

## 5. HERPYLLUS ORNATUS.

Plate XXIV. Fig. 6.

*Description.* Golden rufous; abdomen with abbreviated and interrupted transverse bands black; feet, yellowish, varied with black, thighs of two anterior pairs of legs black.

*Observations.* Wandering on paths, and very active, in woods or unfrequented places. The young usually has its abdomen black, with transverse whitish bands which are formed by hairs.

*Habitat.* North Carolina.

## 6. HERPYLLUS DESCRIPTUS.

Plate XXIV. Fig. 7.

*Description.* Black; abdomen with an abbreviated, longi-

tudinal band, golden rufous; two anterior pairs of legs with last three joints brownish or paler.

*Observations.* There are probably several species very similar to this. A large specimen was found in Alabama, with no yellow spot on its abdomen, its legs with a few stout bristles, its two posterior thighs had two whitish bands above, and the base of its abdomen had a whitish spot, these bands and spot formed by short hairs. Another specimen occurred with the whole disc of the abdomen red, the abdomen had a peduncle one third the length of the cephalothorax, the cheliceres were more prominent. Are these two distinct species? This is closely related to *H. ornatus*.

*Habitat.* North Carolina, Alabama.

#### 7. HERPYLLUS CROCATUS.

Plate XXIV. Fig. 8.

*Description.* Piceous black; abdomen darker, with a saffron-colored band widening towards the apex, blackish beneath; feet, fourth pair hairy.

*Observations.* This species inhabits houses, hiding in cracks, under boards, &c. It does not vary in marking, and is very well characterized.

*Habitat.* Alabama. November.

#### 8. HERPYLLUS LONGIPALPUS.

Plate XXIV. Fig. 9.

*Description.* Black; palpi nearly as long as the cephalothorax; abdomen with sub-obsolete transverse white bands; feet spotted with white; immaculate black underneath.

*Observations.* The spots and bands in this, as well as in most of the other species of this sub-genus, are produced by scales or hairs which are quite deciduous, and hence there are many varieties of markings. This spider moves with the rapidity of lightning.

*Habitat.* Alabama. September.

## 9. HERPYLLUS MARMORATUS.

Plate XXIV. Fig. 10.

*Description.* Black, varied with whitish markings formed by deciduous scales; feet, 4. 1. 2. 3. Fourth pair stoutest.

*Observations.* This can scarcely be the male of my *H. longipalpus*.

*Habitat.* Alabama.

## 10. HERPYLLUS VARIEGATUS.

Plate XXIV. Fig. 12.

*Description.* Cephalothorax rufous; abdomen blackish with three whitish bands, the middle one as an inverted L; feet, varied with piceous and rufous.

*Observations.* This spider, drawn from a specimen collected by Prof. Peck of Massachusetts, was immersed in spirits ten or twelve years at least, before it was painted. The colors may not be correctly represented in consequence of that. A specimen was found in North Carolina, and also one in Kentucky, in a silk tube, which had only two bands on the abdomen, and the external eyes of which were placed nearer together. These will probably be found to belong to another species.

*Habitat.* Massachusetts?

## 11. HERPYLLUS CRUCIGER.

Plate XXIV. Fig. 11.

*Description.* Gray; abdomen with spots and dots black.

*Observations.* This spider is really black, but covered with grey hairs or scales which can be easily rubbed off, and which are arranged on the abdomen somewhat in the form of a cross. It moves with great celerity, and hides under stones, &c.

*Habitat.* North Carolina.

## 12. HERPYLLUS VESPA.

Plate XXIV. Fig. 13.

*Description.* Piceous; cephalothorax with the middle



lower eyes black ; abdomen usually deeper in color, with four impressed dots, separated from the cephalothorax by a whitish peduncle, underneath with a pale spot over each pulmonary orifice.

*Observations.* This spider, like other congeneric species, runs very fast and conceals itself under stones. It is common. It may be that *Agelena plumbea* will be referred to this.

*Habitat.* Alabama.

13. HERPYLLUS ? RAMULOSUS.

Plate XXIV. Fig. 14.

*Description.* Obscure brown ; abdomen with two diverging bands and several spots pale brown, spotless pale beneath.

*Observations.* This may be referred to CLUBIONA, as it bears some affinity to *C. celer* and others.

*Habitat.* Alabama. May.

14. HERPYLLUS ? PYGMÆUS.

Plate XXIV. Fig. 16.

*Description.* Piceous ; feet and palpi paler ; feet, 4.  $\overbrace{2. 1. 3.}$

A very small species.

*Observations.* This species is referred to this division with but little hesitation. It is probably not common. It was found wandering.

*Habitat.* Alabama. August.

Tribe II. LONGIPEDES. *Legs slender, long, maxillæ short, truncated.*

15. HERPYLLUS ? AURATUS.

Plate XXIV. Fig. 15.

*Description.* Bright rufous ; abdomen brilliant gold color above and beneath, with four abbreviated white lines above, and four on the sides towards the base, with a tinge of silvery green around the vulva in the female ; feet, filiform, long and slender, dusky towards the extremity, particularly the fourth pair.

*Observations.* This beautiful slender species moves like a mouse, and with such rapidity, as to make it quite an arduous undertaking to capture it. The male and female have been repeatedly found with the same colors and marking. One specimen, soon after being inclosed in a glass tube, made a beautifully wrought tent like that of *Attus*, open at both ends. It would seem that this spider has a fixed place of abode, from which it issues for hunting excursions, for a female was observed by some children, several times on the same plant, repeatedly escaping to the ground when pursued, until it was at last taken in the very same spot. A female in a state of gravidity was found September 30th, agreeing in every description except in having obscure bands in the form of an  $\Lambda$ ; about four distinct ones, near the apex.

*Habitat.* Alabama. August, October.

16. *HERPYLLUS ZONARIUS.*

Plate XXIV. Fig. 17.

*Description.* Brown; abdomen piceous, with two transverse white bands interrupted in the centre, unspotted beneath; feet varied with brown and yellowish. A small species.

*Observations.* This little spider is probably not a variety of *H. auratus*. Its feet are not so filiform. It runs with great celerity.

*Habitat.* Alabama. September.

17. *HERPYLLUS TRILINEATUS.*

Plate XXIV. Fig. 18.

*Description.* Rufous; abdomen with three transverse golden yellow lines or bands produced by hairs, rufous unspotted beneath; feet, slender and long, paler towards the extremity, penult joint blackish, particularly of the first and second pair. Both sexes alike.

*Observation.* This spider was found wandering.

*Habitat.* Alabama. April, May.

18. HERPYLLUS PARCUS.

Plate XXIV. Fig. 19.

*Description.* Rufous; abdomen with some transverse sub-obsolete obscure bands near the apex, where the abdomen is covered with hair which turns pale green in a certain light, pale underneath; first two pair of legs with two rows of knobs on which long hairs are inserted. A small species.

*Observations.* This spider is usually found under logs in the woods. It is strongly characterized, and cannot be taken for any other. The hairs or bristles on the knobs of the legs are laid close on the leg, and are not visible to the naked eye on that account; they are probably susceptible of voluntary motion, for defence.

*Habitat.* Alabama. July, September.

19. HERPYLLUS ALARIUS.

Plate XXIV. Fig. 20.

*Description.* Cephalothorax pale rufous, with a scolloped margin darker; abdomen obscure piceous with four or five transverse bent lines yellowish; feet, pale, first pair with the top of the thighs and the two next joints blackish hairy, second pair with a blackish ring on the antepenult joint. A small species.

*Observation.* This species was found under a board.

*Habitat.* Alabama.

Tribe III. Doubtful.

20. HERPYLLUS? DUBIUS.

Plate XXIV. Fig. 24.

*Description.* Black; abdomen with two white spots; feet rufous, thighs black.

*Observations.* This species, unfortunately not completely painted, was found running on walls.

*Habitat.* South Carolina.

Genus *TEGENARIA*. Latr. Walck.

*Characters.* *Cheliceres moderately long; maxillæ parallel, rounded, very slightly inclined towards the lip; lip short, rounded at tip; eyes eight, equal, in two rows, anterior one composed of four eyes in a straight line, posterior one longer, curved towards the base; feet, fourth pair longest, then the first, the other two nearly equal.*

*Habits.* Araneïdes sedentary, making in obscure corners an horizontal web, at the upper part of which is a tubular habitation where the spider remains motionless till some insect be entangled in the threads.

*Remarks.* The distinction first proposed by Latreille between this and the *AGELENA* of Walckenaer should be preserved. The habits of the spiders differ considerably, and the position of the eyes is so different as to point out the necessity of a separation. I would have preserved the name *ARANEA* to this division; but confused ideas would arise from attributing to a sub-genus the name, which, though legitimate, belongs more properly to the whole family of spiders.

These make webs of slender texture in dark places without the addition of the strong cross threads which *AGELENA* adds to the horizontal texture. It is only at night that they can be seen at work in the construction of their webs.

1. *TEGENARIA MEDICINALIS*.

JOURNAL OF THE ACAD. OF NAT. SC. PHILAD., II. p. 53, pl. V. fig. 1.

Plate XXIV. Fig. 21.

*Description.* Pale brown; turning to bluish black; cephalothorax with a blackish band on each side; abdomen varied with black, or plumbeous and brown; feet varied with blackish.

*Observations.* This species which was described by the author in the Journal quoted above, is found in every cellar or dark place in the country. For some time the use of its web

as a narcotic in cases of fever, was recommended by many physicians in this country; but now it is probably seldom used. The author being absent from Philadelphia when the second volume of the Journal was published, a strange mistake was committed. The publishers caused a delineation of my *Lycosa lenta* to be printed instead of the original drawing of this species, which was probably lost; and as soon as they were informed of the error, they caused an imperfect delineation of this species to be substituted, which may be seen on Plate V., along with some representations of crystals of Zircon, published by Dr. G. Troost. The palpi of the male of this spider are very complicated, as may be seen by the drawing. The colors vary much.

On the 28th of February, I observed a male specimen of this species in a dark corner, apparently devouring another spider. On moving them with a straw I discovered that the other was a female of the same species, and not dead, but with its legs closely folded on its body, and perfectly motionless. One of the palpi of the male was buried in the vulva of the female, and could not be extricated by the efforts which he made to avoid my intruding straw. I threw them on the ground and had ceased to watch them, when suddenly I saw the female escaping from him, apparently in great terror. In the meanwhile, the male, from whose cheliceres she had escaped, had seized a small bit of stick as a substitute, and ran about with ludicrous haste, seemingly out of his senses for some time. This fact may prove that the female of spiders is not always the tyrant and oppressor of the other sex.

*Habitat.* The United States.

## 2. TEGENARIA PERSICA.

Plate XXIV. Fig. 23.

*Description.* Pale gray; cephalothorax with serrated black lines; abdomen obscure, with about eight pale oblique spots, central line blackish, upper mammulæ very long, obscure beneath, with indistinct markings; feet varied with many

blackish rings. Male not differing from the female; feet,  $\overbrace{4. 1.}$  or  $\overbrace{1. 4. 2. 3.}$  A small species.

*Observations.* This is quite distinct from *T. medicinalis*, by its size, markings, and particularly by the respective length of the legs, the first pair of which is very frequently as long as, or longer than, the fourth. It makes its web on the trunk of trees, with a winding tube turned downward, very much like that of *AGELENA*. I often found it on the peach tree. It never was found larger than the mark on the plate.

*Habitat.* Alabama. September.

### 3. *TEGENARIA?* *FLAVENS*.

Plate XXIV. Fig. 22.

*Description.* Yellowish; cephalothorax rufous; abdomen long and slender; feet slender,  $\overbrace{4. 1. 2. 3.}$

*Observations.* I do not remember where this was found, and it would be well to know what web it makes. It has all the characters of *TEGENARIA*. It must have been some time in whiskey, and the color may have changed.

*Habitat.* Alabama.

### GENUS *AGELENA*. Walck.

*Characters.* *Cheliceres* strong; *maxillæ* slightly inclined, rounded externally; lip conical, as long as, or more than half the length of the *maxillæ*; eyes eight, equal, two anteriorly, four in a row curved anteriorly, two behind the intermediate ones of the second line; feet, fourth pair longest, then the first, then the second, the third being the shortest, upper *mammulæ* very long.

*Habits.* *Araneïdes* sedentary, making in the fields, on bushes or stumps a large horizontal web, with a tubular habitation, the web connected with strong crossed threads extending high above it.

*Remarks.* The name of Walckenaer is preserved for the reasons given in the remarks upon *TEGENARIA*.

No spider is more common or familiar to the eye of every

one who rambles in the fields than the first species of this sub-genus. Its habitus is totally different from that of *TEGENARIA*; it is very voracious, attains an immense size, and probably lives many years.

1. *AGELENA NÆVIA* ? Bosc.

Plate XXX. Fig. 1, 1 a, young.

*Description.* Rufous hairy, cephalothorax with two longitudinal black bands, abdomen blackish with two longitudinal rows of whitish dots. Feet very hairy, with joints terminated by a blackish ring.

*Observations.* This species, common in the United States, makes a large horizontal web, spread on bushes or on the grass, with a tubular retreat which terminates in some crevice in the ground, a stump, or any convenient hole to hide itself; strong cross threads are attached to the bushes above the web. It varies very greatly in size, and is remarkably voracious. When very young it makes its web on the ground, on highways; and in the morning, when the earth is covered with dew, myriads can be seen in April and May.

*Habitat.* Common in all parts of the United States.

2. *AGELENA* ? *PLUMBEA*.

Plate XXX. Fig. 2.

*Description.* Pale rufous; abdomen leaden color, with four impressed dots, the six nipples long; same color beneath, one pale spot each side of the base of the abdomen, over the pulmonary orifices.

*Observations.* This spider was found in North Carolina under a stone, in a silken tube. Another specimen was also found under a stone in Alabama; it was discovered watching a cocoon made of thin but strong white silk, containing about fifty or sixty eggs of a whitish color. As its web was not seen, it may not belong to this division, and may be ultimately referred to *HERPYLLUS*.

*Habitat.* North Carolina, Alabama.

## Genus CYLLOPODIA. Mihi.

*Characters.* Cheliceres small; maxillæ short, inclined over the lip; lip wider than long, triangular; eyes six, subequal, two very small, placed near together in the middle, two larger far apart placed above, and two placed each on a tubercle on the side; feet, fourth pair longest, then the first, the third shortest.

*Habits.* Araneïdes sedentary, making a cocoon.

*Remarks.* This anomalous spider appears to be related to EPEÏRA. I found it in the attitude of one, suspended from a thread or web which I would have examined carefully, had I not taken it as a new species of that sub-genus. It has certainly six eyes only; its cephalothorax is flattened in the middle, being deeply excavated behind; the last joint of its palpi are terminated with a small nail; its abdomen is gibbous and rugose, covering anteriorly a great part of the cephalothorax, with four mammulæ and a cauda; the two anterior pair of legs are directed forward, and the other two in the opposite direction, so that the sternum has a vacant place in the middle.

The trophi are nearly those of EPEÏRA, but approach THERIDIUM. The cheliceres are very small, but capable of reciprocal motion.

## CYLLOPODIA CAVATA.

Plate XXX. Fig. 3.

*Description.* Piceous; cephalothorax deeply excavated at base for the reception of the abdomen; abdomen varied with white dots and lines, five tubercles covered with tufts of scales on each side above, the second from the base hornlike; feet, 4. 1. 2. 3. two anterior pair directed forward, the other two turned backwards, leaving a vacant space on the sternum.

*Observations.* This was found on a twig near an EPEÏRA.

*Habitat.* Alabama, October.

## Sub-genus PRODIDOMUS. Mihi.

*Characters.* Eyes eight, placed near together, four in



front, making a straight row, two on each side, forming a curve with the external ones of the first row, and leaving a space above, external ones sub-oval, two middle ones round and black; maxillæ triangular, wide at base, pointed at tip; cheliceres very large, fangs long and bent; feet  $\overbrace{4. 1. 2. 3.}$

*Observations.* This new sub-genus shews some of the characters of CLUBIONA and of THERIDION. I hope some future naturalist will give its history and its location in the natural arrangement. I know nothing of its habits.

PRODIDOMUS RUFUS.

Plate XXX. Fig. 4.

*Description.* Rufous; abdomen deeper above, venter pale, four nipples; feet,  $\overbrace{4. 1. 2. 3.}$

*Habitat.* Alabama, in dark cellars.

GENUS EPEÏRA. Walck.

*Characters.* Cheliceres short; maxillæ parallel, short, wide at base, truncated at tip; lip wide, sub-triangular; eyes eight, four in the middle placed in the form of a square, two on each side placed near each other diagonally on a common eminence; feet, commonly the first and second longest, the third being the shortest.

*Habits.* Araneïdes sedentary, forming a web composed of spiral threads crossed by other threads departing from the centre, often dwelling in a tent constructed above the web. Cocoon of various form.

*Remarks.* I endeavored to arrange the numerous species of this sub-genus according to the method of Walckenaer; but the characters of EPEÏRA are not very liable to vary, except by the form of its body. The middle eyes offer some variations it is true, and the lateral ones are sometimes placed lower than in others; but I could not avail myself of these characters to establish natural subdivisions.

The spiders of this sub-genus are known to every observer of nature. Their habits, and particularly their webs, are fa-

miliar to every one. Their history enters into the history of man. If it be not a fiction, it was a spider of this section which, by making its web at the entrance of the cave concealing Mahomet, saved the life of the impostor. The description of Ovid is sufficient to show that the ill-fated *Arachne* was transformed into an *EPEIRA* by the Goddess Pallas, or rather by the observant poet of Sulmo. [Ovid's *Metamorph.* VI. p. 141.]

Tribe I. *OVATÆ INERMES.* *Body without spines, generally large.*

1. *EPEIRA RIPARIA.*

*E. FASCIATA?* R. A. IV. p. 249.

Plate XXX. Fig. 5.

*Description.* Black, cephalothorax covered with silvery white hairs, abdomen varied with bright yellow spots and dots. Thighs usually bright rufous at base, except the first pair. Of a large size, seldom small.

*Observations.* This remarkable species usually dwells on the margin of waters, where it makes a web of strong threads, in which large *Libellulæ* and *Melolonthæ* are often caught. The abdomen of the female is flat in the early part of the season, and it is not till August, that being distended with eggs it assumes the oviform shape. Its cocoon is conical, as large as a small plum, like a pear hanging down. Whenever opened it was found full of young spiders instead of eggs. Is it viviparous?

*Habitat.* The United States.

2. *EPEIRA FASCIATA?* R. A. IV. 249.

Plate XXX. Fig. 8.

*Description.* Covered with silvery white hairs; abdomen with about fifteen transverse, nearly interrupted black bands, and several yellow marks between; feet rufous with black bands, anterior thighs black.

*Observations.* This spider should be dedicated to the greatest Entomologist of this age, (Latreille) if it proves not to be the *fasciata*. No doubt it is related to *E. fasciata* of Europe. (R. A. IV. 249.) It is quite rare in the Southern States, but common in New England, particularly in Maine. It abounds in meadows, near the ground, where it makes its web. An immaculate species was found in North Carolina, which may be referred to this, as its abdomen was not distended with eggs, and the bands may become apparent when it is full. It was surrounded with several males four or five times smaller.

*Habitat.* United States.

### 3. EPEIRA VULGARIS.

Plate XXX. Fig. 6.

*Description.* Pale gray, abdomen piceous, with various winding white marks, a middle one in the form of a cross; feet with piceous rings.

*Observations.* This spider is well known even to those who are not attentive observers of nature. Every one has noticed its regular geometrical web, which is frequently placed near the windows of our houses. It is subject to such variations in color and marking that it is quite difficult to distinguish several other species from varieties of this species. I have once found seventeen varieties of spiders enclosed in the nest of a SPHEX, called *dirt-dauber* in the Southern States, and each could be referred to this species, though they all differed more or less from each other. This species seems domesticated, being seldom found far from our gardens. The reason probably is, that it is more secure there from its enemy the SpheX.

*Habitat.* South Carolina.

### 4. EPEIRA DOMICILIORUM.

Plate XXX. Fig. 7.

*Description.* Gray or brownish, covered with coarse white hairs; cephalothorax with a blackish band near the edge;

abdomen with many markings of black and dusky surrounding a spot in the form of a cross; thighs rufous at base, tipped with a blackish ring, other joints with dusky rings; abdomen underneath with a large black spot, near the centre of which, are two white dots. A large species.

*Observations.* This spider is often found in dark places, and even in dark apartments not much frequented, where it makes its web. The female is supplied with a hook over the vulva as in *E. diadema*. See *Régne Animale*, IV. p. 218. It makes a cocoon of yellow silk in the shape of a button, lenticular, and attached to a solid body.

*Habitat.* Alabama. July, September.

#### 5. EPEIRA SEPTIMA.

Plate XXX. Fig. 9.

*Description.* Rufous, spotless, hairy above; abdomen with two impressed dots above, and with two angular lines yellowish beneath, thus  $\nabla$ , blackish in the centre; feet varied with yellowish and deep rufous.

*Observations.* This large species is not rare, and is found more commonly in the Autumn. When caught it spins, probably for defence, a large quantity of beautiful white silk which it draws out by pressing its posterior feet against the abdomen.

*Habitat.* North Carolina, Alabama.

#### 6. EPEIRA INSULARIS.

Plate XXX. Fig. 10.

*Description.* Cephalothorax rufous; abdomen yellow with many waving purplish markings; thighs and proximate joints orange with rufous rings, terminal joints white, with black rings. A large species.

*Observations.* This is no doubt related to *E. trifolium*, *aureola*, and *obesa*, but the rufous rings which are found on all the thighs of this, are wanting in those. Like *E. domiciliorum*, the female has a small hook above the vulva.

*Habitat.* Found on an island of the Tennessee, Oct. 13th, after some frost.

## 7. EPEIRA OBESA.

Plate XXX. Fig. 11.

*Description.* Testaceous; abdomen with obscure marks, nearly orbicular, feet with joints tipped with rufous.

*Observations.* This species was found after the first frosts, its abdomen still filled with eggs.

*Habitat.* Maine.

## 8. EPEIRA TRIFOLIUM.

Plate XXXI. Fig. 1.

*Description.* Cephalothorax pale, with three longitudinal blackish bands; abdomen purplish, with many spots and two undulated bands white; joints of feet tipped with black, posterior thighs with one black ring near the middle.

*Observations.* This elegant species is one of those which it is very difficult to distinguish from others. It was found in houses and near dwellings.

*Habitat.* Maine.

## 9. EPEIRA AUREOLA.

Plate XXXI. Fig. 2.

*Description.* Pale testaceous; cephalothorax rufous; abdomen orange color with white dots of various sizes; joints of feet tipped with rufous, posterior thighs with one rufous ring near the middle.

*Observations.* This species certainly differs much in markings from *E. trifolium*, and yet, being found after the first frosts, it may have changed by the cold, and prove a mere variety of that species. For the present, however, I consider it as distinct.

*Habitat.* Maine.

## 10. EPEIRA LABRYNTHEA.

Plate XXXI. Fig. 3.

*Description.* Reddish brown, abdomen varied with paler

spots, and a scolloped white line above, a white longitudinal line edged with black, and two white dots near the apex beneath; feet rufous, yellowish towards the end; male the same, with hairy legs.

*Observations.* This very distinct and common species is of a middling size, seldom larger than the drawing. Its web is very compound, for it unites together that of a *THERIDIUM*, partly that of an *AGELENA*, and that of an *EPEÏRA*. The web peculiar to this sub-genus is in front, then usually a tube like that of *AGELENA* leads from this to one made of crossed threads like that of *THERIDIUM*, at the upper part of which is constructed a tent covered with dried leaves in the manner of shingles, under which it remains sheltered during the day. The cocoon is in the shape of a button or flattened cone, sometimes brownish above and pale gray beneath; as many as five have been found in a string, one above the other. The young when just hatched resemble the mother. The first time I found this spider, I also found the first *MIMETUS*, which had invaded the web of one of these and taken its place, so that for a period I thought this species a transition to that sub-genus. But this has all the characters of *EPEÏRA*.

*Habitat.* North Carolina, Alabama.

#### 11. *EPEIRA PROMPTA.*

Plate XXXI. Fig. 4.

*Description.* Pale bluish; abdomen with two indented lines and several spots black; base of the thighs rufous, a black ring between this and the tip, and black rings on the other joints.

*Observations.* This very distinct species is very active after sunset, running with great speed, and leaping like an *ATTUS*. It is motionless during the day. A small specimen of this species was found in Alabama, with its abdomen black underneath, having a central whitish spot.

*Habitat.* Massachusetts. Alabama.

## 12. EPEIRA STRIX.

Plate XXXI. Fig. 5.

*Description.* Rufous; abdomen yellowish, with a scoloped blackish band on each side above, and about six black dots, a broad black spot underneath, with a yellow lunule on each side; feet, with joints terminated by a black band.

*Observations.* The male and female were found very frequently near streams, where they make perpendicular webs. This spider during the day remains strictly concealed near its web, in a dwelling which it constructs with leaves drawn together in the manner of a tube by means of threads.

*Habitat.* Pennsylvania. Alabama.

## 13. EPEIRA THADDEUS.

Plate XXXI. Fig. 6.

*Description.* Cephalothorax rufous; abdomen green, yellowish towards the base, with a black band on each side of the abdomen, piceous underneath, with a yellow spot in the centre; feet orange, varied with rufous and blackish. A somewhat large species.

*Observations.* This species, which is sometimes whitish on the abdomen, is nevertheless very readily recognized. I have seen some specimens larger than the delineation. Its dwelling-place is really beautiful; it is placed above its web, and made of the finest white silk, shining with a satin lustre; its shape is that of an inverted thimble, and it is usually placed under a leaf bent together for the purpose of affording shelter and security.

*Habitat.* Alabama. September, October.

## 14. EPEIRA HEBES.

Plate XXXI. Fig. 7.

*Description.* Brown, abdomen with several forked lines, and two spots black.

*Observations.* This would appear to be an obscure species, and not easily distinguished from *E. vulgaris*; but, being first

described in South Carolina, then seen in North Carolina several years afterwards, I consider it as a distinct species. It is perfectly inactive in the daytime, living chiefly on coleopterous insects, which it binds up in a few minutes with a strong web of silk.

*Habitat.* Southern Atlantic States.

15. *EPEIRA MAURA.*

Plate XXXI. Fig. 8.

*Description.* Rufous; abdomen oval, black, highly glossy, with yellow spots, underneath blackish, spotted with yellowish; feet varied with black rings. A middle size species.

*Observations.* This very distinct species was usually found in the vicinity of streams of water.

*Habitat.* Alabama. April, May, September.

16. *EPEIRA NIVEA.*

Plate XXXI. Fig. 9.

*Description.* White above and beneath; abdomen nearly orbicular, with an oval blackish spot on the disc.

*Observations.* This spotless species is remarkable for its pale color, and in that respect approaches *E. alba*, but it differs from it by the form of its abdomen, and by its more slender legs.

*Habitat.* Alabama. July.

17. *EPEIRA? HAMATA.*

Plate XXXI. Fig. 10.

*Description.* Whitish; abdomen with a blackish band broad at base, and terminating in a point before the apex; feet, (in the male) varied with blackish, with a few long hairs, second pair with antepenult joint crooked, having one bristle longer than the rest.

*Observations.* The characters of this, somewhat depart from *EPEIRA*. The web has not been observed, and the female is unknown. Could it be the male of *E. nivea*?

*Habitat.* Alabama. August.



## 18. EPEIRA PRATENSIS.

Plate XXXI. Fig. 11.

*Description.* Yellow; abdomen yellowish rufous, with two rows of black dots approaching each other towards the apex.

*Observations.* This spider, found in a field, was seen only once.

*Habitat.* Massachusetts.

## 19. EPEIRA PLACIDA.

Plate XXXI. Fig. 12.

*Description.* Yellowish or pale rufous; cephalothorax with an obscure band and darkish edge; abdomen varied with whitish, brownish lines, and an angular piceous band; feet hairy. A small species.

*Observations.* This may be distinguished from *E. spiculata* by its marking, but particularly by the lower middle eyes, which are farther from each other than the upper ones. It makes a perpendicular web.

*Habitat.* Alabama. April.

## 20. EPEIRA SPICULATA.

Plate XXXI. Fig. 13.

*Description.* Pale or yellowish; cephalothorax with a narrow blackish band; abdomen whitish, with a barbed purplish black band; feet hairy, with a shade of greenish. A very small species.

*Observations.* This species is very common in the woods, making a perpendicular web.

*Habitat.* Alabama. September, October.

## 21. EPEIRA FOLIATA.

Plate XXXI. Fig. 14.

*Description.* Pale brown; abdomen ovate terminating in a joint, with waved black lines, two external almost meeting at the apex, two internal meeting before or near the middle.

*Observations.* This spider is not unfrequently found on weeds and bushes. When at rest it gathers some leaves together as a tent. It moves with amazing rapidity. It is quite distinct from *E. hebes*.

*Habitat.* Alabama. June, July.

22. *EPEIRA SANGUINALIS.*

Plate XXXI. Fig. 15.

*Description.* Greenish yellow; abdomen above crimson with about three central spots, and two opposed bands scolloped towards the median line, white. A small species.

*Observations.* This singularly marked spider was found in my cocoonery, suspended from a thread.

*Habitat.* Alabama. July.

23. *EPEIRA BOMBYCINARIA.*

Plate XXXI. Fig. 16.

*Description.* Cephalothorax rufous; abdomen grayish above and beneath, above with two white spots near the base, two little dots near the middle, and two opposed scolloped lines blackish; feet rufous, varied with black.

*Observations.* This spider was found making its web, and abiding in my cocoonery.

*Habitat.* Alabama.

24. *EPEIRA DISPLICATA.*

Plate XXXI. Fig. 17.

*Description.* Yellowish or whitish; cephalothorax with two upper middle eyes much larger than the rest; abdomen with four impressed dots before the middle, and six black dots near the apex, each dot surrounded by a pale ring. A small species.

*Observations.* This spider is very common in the spring in low bushes and grass.

*Habitat.* Alabama. May, October.

## 25. EPEIRA RUBENS.

Plate XXXI. Fig. 18.

*Description.* Red; cephalothorax with the region of the eyes black; abdomen with four impressed dots placed somewhat anteriorly; feet black, except the base of the thighs, which is red like the palpi and the rest of the body. A small species, about the size of the drawing.

*Observations.* This species is not rare, both sexes having been found on perpendicular webs. It will be readily distinguished from *L. coccinea*, by the form of its abdomen, which is nearly orbicular, by its legs, which are short, &c.

*Habitat.* Alabama. June, October.

Tribe II. OVATA INCLINATA. *Body sub-cylindrical, web horizontal.*

## 26. EPEIRA HORTORUM.

Plate XXXI. Fig. 19.

*Description.* Tender green; abdomen above silvery white with branching blackish lines, beneath green with yellowish lines and an orange spot.

*Observations.* This truly elegant and common inhabitant of gardens and fields, makes an horizontal web on bushes generally sheltered from strong winds, which would destroy its slender fabric. Its web is extremely regular, and is a fair sample of the skill of the genus *EPEIRA*.

*Habitat.* All the United States.

## 27. EPEIRA GIBBEROSA.

Plate XXXI. Fig. 20.

*Description.* Pale yellowish green, body covered with round yellow dots; cephalothorax elevated in the middle; abdomen yellowish above, with three longitudinal and several diagonal lines purplish black, and three or four transverse orange lines, underneath greenish with blackish lines and small whitish spots; feet hairy, 1. 4. 2. 3. in all specimens. A species of moderate size.

*Observations.* This very distinctly marked species is by no means common, dwelling in low grassy places, and making sometimes perpendicular, sometimes horizontal webs. Except in the respective length of its feet, it is related to *E. hortorum*.

*Habitat.* Alabama. September, October.

Tribe III. ELONGATÆ CYLINDRICÆ. *Body elongated, cylindrical.*

28. EPEIRA DIRECTA.

Plate XXXI. Fig. 21.

*Description.* Pale testaceous; abdomen oblong, with three or four parallel rufous lines on each side of a central one which alone reaches the base.

*Observations.* This spider is found generally near water, where it makes a perpendicular web on low bushes. When approached, it drops down and remains motionless where it falls. Its body is very soft. The same was found in Alabama, differing only in having about four minute blackish dots on the second line from the central one on the abdomen.

*Habitat.* South Carolina, Alabama.

29. EPEIRA RUBELLA.

Plate XXXI. Fig. 22.

*Description.* Bright rufous; abdomen oblong, with a white longitudinal band; feet slender; a very small species.

*Observations.* This little spider was found on a web which I think was perpendicular. It may prove to be the young of *E. directa*, but it is not probable.

*Habitat.* Alabama. August.

30. EPEIRA SUTRIX.

Plate XXXI. Fig. 23.

*Description.* Whitish; covered with short silvery hair, varied with brownish abbreviated lines, and bands on the feet.